AutoPulse

Electronic Heat Detectors For Two-Wire Bases (Z-10)

Features

Accurate and reliable heat detection for protection of property

Available with rate-of-rise temperature detection:

- Dual thermistor rate-of-rise operation
- For use where anticipated ambient temperature changes are less than 6 °F/minute (3.33 °C/minute)

Epoxy encapsulated electronic design provides:

- Easily tested, self-restoring operation with repeatable accuracy
- Alarm indicating LED located on detector
- Current limited alarm that is compatible with two wire initiating device circuits (IDCs)

Optional remote alarm indicating LED

Available base options:

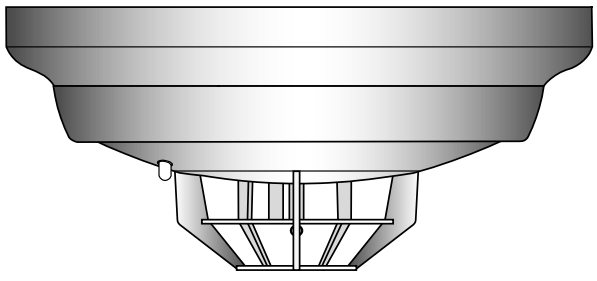
- Bases for 2-wire operation
- Auxiliary relay output (refer to selection chart on for relay ratings)
- Remote alarm indicating LED output

Description

Rate-of-rise detection is determined by comparing two thermistor responses. By combining accurate thermistors with proper physical placement, this patented rate-of-rise detection design achieves a high level of performance not normally available with mechanical detection.

Listings and Approvals

- UL Listed: S6651
- ULC Listed: S6651
- FM Approved: 3015976
- CSFM (Approved)
- MEA (NYC) (Approved)



006570

Electronic Heat Detector Mounted in Base

Specifications

Voltage	15 to 32 VDC (filtered DC with 30% maximum ripple)
Standby Current	80 μA typical, 100 μA maximum
Alarm Current, 2-Wire Operation	Up to 100 μA maximum, exact current is determined by alarm current limiting of connected IDC
Rate-of-Rise Operation	Meets FM requirements for operation between 15° and 25 °F/min (8.33° and 13.88 °C/min)
Humidity Range	10% to 95% RH from 32° to 122 °F (0° to 50 °C), not intended for outdoor applications
Color	Frost-White
Dimensions	Refer to diagram on page 3
Ambient Temperature Operating Range	
135° F Models	32° to 100 °F (0° to 38 °C)
200° F Models	32° to 150 °F (0° to 66 °C)

⚠ WARNING

Hazardous levels of smoke and toxic gas can build up before the heat detection device initiates an alarm. To ensure the safety of personnel, the use of smoke detection is highly recommended.

Applications Reference

Heat detectors are used where property protection is desired and where life safety protection is not required or is performed by other equipment.

The rate-of-rise operation provides heat detection for use where temperature fluctuations are controlled and are less than 6 °F/min (3.33 °C/min). Where temperatures may fluctuate more quickly, use fixed temperature detection.

Refer to NFPA 72, the *National Fire Alarm Code,* for additional guidance in applying and locating heat detectors.

Alarm Indicating LED Operation

The heat detector LED turns ON continuously when in alarm. During normal conditions the LED is OFF.

Electronic heat detector design is protected by the following U.S. Patents: 5,450,066; DES.377,460.

Heat Detector Selection Chart

Part No.	Fixed Temperature Operation at	Rate-of-Rise Operation
430565	135 °F (57 °C)	Between 15° and 25° F/min (8.33° and 13.88° C/min)
430566	200 °F (93 °C)	

Heat Detector Base Selection Chart

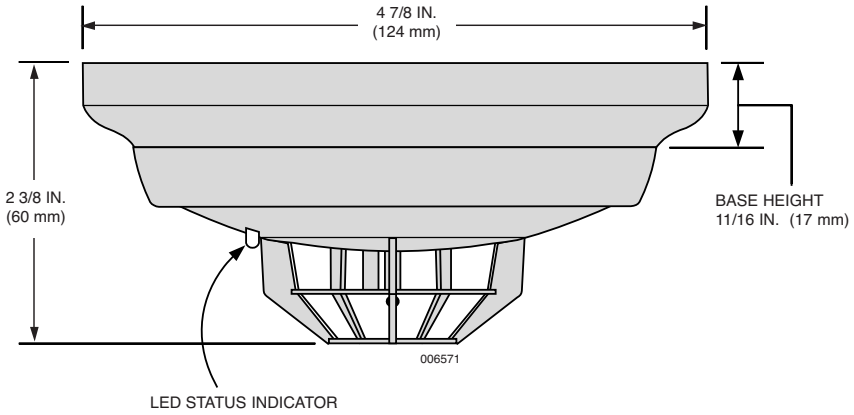
Smoke Detectors				
Part No.	**Description**	**Connection**	**Details**	
430567	**2-Wire Base,** with connections for remote LED alarm indicator	IDC connections	Screw terminals for in/out wiring, 18 to 14 AWG	
430570	**2-Wire Base** with remote LED alarm indicator	IDC connections	Screw terminals for 18 to 14 AWG for in/out wiring of zone (+), color coded 18 AWG leads for in/out wiring of zone (–)	
		LED connections	Color coded 18 AWG leads	
430569	**2-Wire Base** with auxiliary alarm relay output **Note:** Must be connected as the only device on the IDC to ensure relay operation.	**Relay Operation Type**	**Relay Ratings**	
		Power-limited	1 A @ 28 VDC	Dual Form "C" contacts, for suppressed loads
		Nonpower-limited	3 A @ 120 AC	
		Output Type	**Wiring Connections**	
		IDC connections	Screw terminals for 18 to 14 AWG for in/out wiring of zone (+), color coded 18 AWG leads for in/out wiring of zone (–)	
		Relay connections	Color coded 18 AWG leads	

Heat Detector Accessories

Part No.	Description	Details	Base Compatibility
430572	Remote Red LED Alarm Indicator	Mounted on single gang stainless steel plate, wiring connections are 18 AWG color coded leads	Part No. 430570 only
430573	End-of-Line Relay	Epoxy encapsulated design, 24 VDC operation, wiring connections are 18 AWG color coded leads	—

Metric wire equivalents: 18 AWG = 0.82 mm^2; 14 AWG = 2.08 mm^2

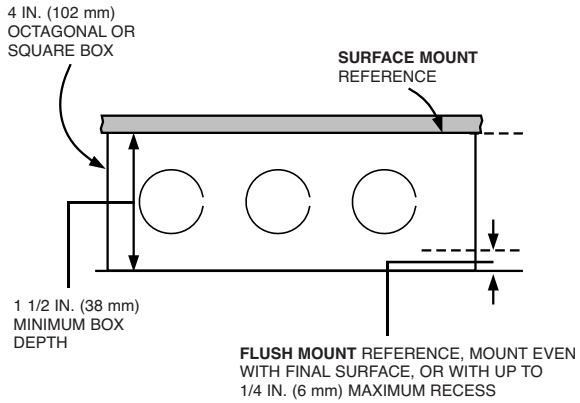
Dimensions and Reference Information

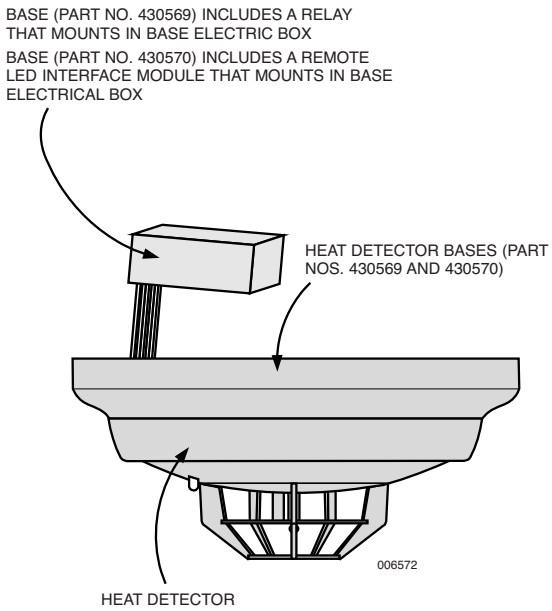


REMOTE RED LED INDICATOR (PART NO. 430572)
(NOT TO SCALE)

Mounting Information

Base	Electrical Box Requirements
430567	4 in. (102 mm) octagonal or 4 in. (102 mm) square box, 1-1/2 in. (38 mm) deep
	Single gang box, 2 in. (51 mm) deep
430569 430570	4 in. (102 mm) octagonal or 4 in. (102 mm) square box, 1-1/2 in. (38 mm) deep with 1-1/2 in. (38 mm) deep extension ring (see diagram below)





TYCO FIRE PROTECTION PRODUCTS
ONE STANTON STREET
MARINETTE, WI 54143-2542 715-735-7411

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